Essential and Frontline Workers in the COVID-19 Crisis

By Francine D. Blau, Pamela A. Meyerhofer and Josefine Koebe
April 30, 2020
Cornell University and DIW Berlin / Universität Hamburg

The Issue:

The “Great Lockdown” arising from the COVID-19 pandemic has not been universal – essential workers, who are vital for the core functions of the economy and the society, are still on the job. But not all essential workers face the same level of risk of
infection. Some of these workers are “frontline” and must provide their labor in person while others can work from home. And some industries deemed essential have either shut down or are operating on a very limited basis so many of their employees are not working. We analyze the characteristics of essential workers, and a subcategory of this group, frontline workers. We find that the broader group of essential workers comprises a large share of the labor force and tends to mirror its demographic characteristics. In contrast, the narrower category of frontline workers is, on average, less educated, has lower wages, and has a higher representation of minorities. These results hold even when accounting for industries that are currently shutdown or operating at a limited level.

Frontline workers earn lower wages on average and are more likely to be from socio-economically disadvantaged groups than the overall workforce.

The Facts:

- **Essential workers comprise a large and varied group.** We use the official industry guidelines issued by the Department of Homeland Security (DHS) to identify the broad group of workers listed “who conduct a range of operations and services that are typically essential to continued critical infrastructure viability.” The industries they support represent, but are not limited to, medical and healthcare, telecommunications, information technology systems, defense, food and agriculture, transportation and logistics, energy, water and wastewater, law enforcement, and public works. Using information from the 2017 and 2018 American Community Survey, we find that these essential workers represent nearly 70 percent of all workers and are as a group quite similar to the labor force as a whole. As compared to the overall workforce, essential workers represent: a somewhat lower share of women (44% vs. 47%); similar average wages ($25.96 vs. $25.65), with about the same share earning low wages and high wages (in the bottom and top quartiles of the overall wage distribution, respectively); a slightly higher share of minorities; somewhat lower educational attainment; a somewhat larger share in
predominantly male occupations; and a similar distribution across broad occupational groups. Importantly, the designation of "essential" means needed but does not speak to scale (how many are needed) so it does not adjust for industries identified as essential that are currently **shutdown or running under limited demand**. For example, while the airline industry is absolutely essential, it has been scaled down due to travel restrictions, stay-at-home orders, and decreases in demand. Similarly food preparers and servers are essential workers due to their role in food provision but closures have occurred and employment has been scaled down dramatically due to public health measures banning in-restaurant dining. When we exclude current shutdown or reduced industries the average wage of essential workers is somewhat higher ($27.25) but other characteristics of this subgroup of essential workers are almost identical to the characteristics cited above, although this may change with changes in shutdown and social distancing policies.

- **“Frontline” workers are also a varied group but receive lower wages on average and come disproportionately from socio-economically disadvantaged groups compared to the overall workforce.** We identify frontline workers as a subcategory of essential workers in occupation groups where a large majority of workers (over 70%) cannot feasibly work from home. Frontline workers include, but are not limited to, healthcare workers, protective service workers (police and EMTs), cashiers in grocery and general merchandise stores, production and food processing workers, janitors and maintenance workers, agricultural workers, and truck drivers. These workers constitute 60% of essential workers and 42% of all workers. Women are a lower percentage of frontline workers (39%) than the broader group of all essential workers but a bigger share in many specific frontline occupations. Average wages of frontline workers ($21.85) are lower than those of all workers and essential workers. A higher share of frontline workers earns low wages (in the bottom quartile) and a smaller share earns high wages (in the top quartile). They are on average less well educated than all workers, with a higher share of high school dropouts and a lower share having at least a four-year college degree. They also have a higher share of minorities, particularly blacks and Hispanics.

- **Healthcare workers represent 20 percent of all frontline workers.** This includes the relatively high-paying, highly educated group comprised of
healthcare practitioners and those in technical occupations (e.g. doctors, registered nurses and pharmacists – about three quarters of all healthcare workers) as well as health-support workers (e.g. nursing assistants and home health aides – about one-quarter of this group). Health-support workers are a relatively less well-educated, relatively low-wage group. Women comprise a majority of health care practitioners (75%), although the majority of doctors are men. Women represent an even larger proportion of health support workers (86%). The majority of health-support workers are non-white (54%, including 25% black and 19% Hispanic).

- **Essential sales and related occupations represent 15 percent of frontline workers.** Women constitute a little under half of all workers in this occupation group, but with a quarter of workers employed in predominantly female occupations. Overall, the average wage is about the same as that for all workers, but an above average share earns wages in the bottom quartile. Almost a quarter of workers in this group are cashiers at essential retailers such as grocery stores and general merchandise stores. Cashiers are 71% female, 51% non-white, and 61% earn wages in the lowest quartile of all workers.

- **A number of heavily male, mostly blue-collar categories together constitute a little more than half of the frontline occupations.** These occupations include transportation and material moving occupations (13% of frontline workers), production occupations (11%), construction and extraction (10%), building and grounds cleaning and maintenance (6%), installation maintenance and repair (6%), as well as farming, fishing and forestry occupations (2%). Average wages for essential workers in these occupation groups are substantially below the average for all workers. Protective service occupations (4% of frontline workers), another predominantly male category, earn about the same wage as the average for all workers.

- **The characteristics of the subset of frontline workers who are not in industries basically shutdown or steeply reduced as a result of the pandemic, are very similar to those of all frontline workers.** About four-fifths of all frontline workers are in these industries, representing one-third of the labor force. Like the broader group of all frontline workers, this group is majority male, has a higher proportion of minority workers than the general workforce
and is, on average, less educated and earns below average wages, with a substantial share of workers in the bottom quartile of wages.

- **Childcare is of vital concern to many frontline workers.** Meeting the childcare needs of frontline workers is extremely challenging at a time when most schools and day care centers are closed. This may be a particular problem for women since they tend to bear the major responsibility for child care in most married couple families and single mothers often do not have another adult to rely on. Women are substantially represented among frontline workers, especially in healthcare and retail occupations, adding to the importance of this issue. For example, 23 percent of health-support workers are single mothers (as compared to 8% of both all frontline workers and all workers).

---

**What this Means:**

Essential workers have been called on to meet our basic needs during the COVID–19 shutdown. A significant portion of these workers, frontline workers, cannot work remotely. Our analysis shows that, on average, frontline workers are disproportionately less educated and minority workers, earning below average wages and with a substantial share of workers in the bottom wage quartile. Thus, the provision of hazard pay to these workers may be merited both because of the risks they are taking by remaining on their jobs as well on equity grounds. Hazard pay could also help recruit workers into these jobs at a time when they are especially vital. This is especially the case given the generosity of the unemployment insurance benefit increase under the CARES Act which may leave some low-wage workers doing better collecting unemployment benefits than continuing their frontline employment. Other benefits should also be considered including support for the childcare needs of these workers, paid sick leave (where not otherwise mandated under the CARES Act), coverage of COVID–19 health expenses for those who lack health insurance, and death benefits to the families of those who have died of the virus.